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ABSTRACT

The purpose of this study was to compare the effects of multiage and homogeneous age methods of grouping pupils for classroom instruction in the primary department of Beaverbrook Elementary School in Griffin, Georgia. Results were expected to aid the staff in developing a more comprehensive and functional nongraded school. The controlled variable was the method used in grouping pupils. Six homogeneous age and seven multiage classes were established with pupils in their first, second and third years of school. Both groups were pretested and posttested in reading and mathematics achievement and self-concept. First-year pupils' achievement gain was significant at the 0.03 level in favor of the multiage group. Pupils in their second and third years of school showed no significant gain in reading achievement; however, the mathematics gain favored the homogeneous age group and was significant at the 0.02 level. Self-concept gain was significant at the 0.02 level in favor of the multiage group. The data were computed from a random sample of 120 pupils, approximately one-third of the population. A comparison of the two methods of grouping indicated the multiage method to be more appropriate for primary students in the school. A review of selected literature on grouping is included in the document. (Author/MS)

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A COMPARISON OF THE EFFECTS OF MULTIAGE GROUPING VERSUS HOMOGENEOUS AGE GROUPING IN PRIMARY SCHOOL CLASSES OF READING AND MATHEMATICS ACHIEVEMENT

by

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Submitted in partial fulfillment of the requirements for the degree of Doctor of Education, Nova University

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ABSTRACT

The purpose of the practicum was to compare the effects of multiage and homogeneous age methods of grouping students for classroom instruction in the primary department of Beaverbrook Elementary School. The objective of the practicum was to evaluate the results of the two grouping methods to aid the staff in developing a more comprehensive and functional nongraded school. The controlled variable was the method used in grouping students.

Six homogeneous age and seven multiage classes were established for implementation at the beginning of the 1975-76 school term. Both groups were pre- and post-tested to evaluate the achievement in reading and mathematics as well as self-concept. The analyses of the data indicated first year students' achievement gain in reading and mathematics was significant at the 0.03 level in favor of the multiage group. Students in their second and third year of school showed no significant gain in reading achievement; however, the mathematics gain favored the homogeneous age group and was significant at the 0.02 level. Self-concept gain was significant at the 0.02 level in favor of the multiage group. The data were computed from a random sample of one-third of the population. A comparison of the two methods of grouping indicated the multiage method to be more appropriate for primary students in Beaverbrook School.

Approximately 57 percent of the students in the primary department of Beaverbrook School were placed in multiage classrooms during the 1975-76 school term. It is anticipated that 75 to 80 percent of the students in the primary department will be placed in multiage classrooms during the 1976-77 school term.

A COMPARISON OF THE EFFECTS OF MULTIAGE GROUPING VERSUS HOMOGENEOUS AGE GROUPING IN PRIMARY SCHOOL CLASSES OF READING AND MATHEMATICS ACHIEVEMENT

Charles F. Mobley[1]

CHAPTER I

INTRODUCTION

Educators have discussed the topic of grouping students for instruction throughout the history of the structured school. Grouping has been one of the most controversial issues in education, particularly among educational theorists. However, not only have educational theorists been at odds about student grouping methods and their virtues, but the educational practitioners as well have debated the issue for many years without the issue being resolved. It does not appear possible for the educational theorists or practitioners to decide upon a global grouping method because the

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[1]Principal of Beaverbrook Elementary School, Griffin, Georgia 30223; enrollment 726 students.

circumstances surrounding each instructional setting are unique in relationship to the particular school and community involved.

The classic struggle in many school districts has been between the proponents of heterogeneous grouping and those advocating homogeneous grouping. Instructional groups can be built to represent heterogeneity or homogeneity by virtue of separating or mixing students by one or more of the following: age, sex, race, intelligence, size, interest, creed, religion, social class, financial status, and political affiliation. It appears that most schools prefer to group at random and thus produce heterogeneous grouping within an age bracket. This may be accounted for because of the graded structure on which most schools are based. There seems to be something sacred and mystical about having students of the same age group to constitute an instructional unit.

The teachers in the primary department of Beaverbrook Elementary School dealt with the problem of seeking the most adequate method of instructional grouping for several years. They tried several methods of grouping students for instruction but none seemed to have a

universal effect which could be employed under all circumstances. The teachers faced the problem of trying to identify the proper type of grouping to allow them to fully develop a nongraded school program. After limited use of the multiage grouping method, it appeared that multiage or heterogeneous grouping could possibly provide a more appropriate type of grouping.

The practicum was designed, executed and evaluated in order to aid the Beaverbrook teachers in their search for the most suitable grouping method (or methods) for their school. The practicum was discussed among the staff members during the winter of 1975 and plans were made in the spring of 1975 for implementation in September of the 1975-76 school year. The practicum per se was scheduled for termination in the spring of 1976 but the results of the findings were to be used to implement the practicum fully during the 1976-77 school year.

The practicum was designed to explore the positive and negative aspects of multiage and homogeneous age student grouping. The school organizational structure is nongraded; however, it is not nongraded to the point that some parents do not equate the number of years in

school with a grade level. If the results of the practicum can be properly implemented, the school may be able to change the attitudes of the parents and retrain them to think in terms other than grade levels.

Teachers established instructional groups in the spring of 1975; execution of the practicum began with the opening of the 1975-76 school term. The design dictated a pre-test and post-test program in mathematics achievement, reading achievement, and self-concept. The testing program was designed to be given in September of 1975 and April of 1976, with the results to be used as part of the practicum evaluation.

The practicum was executed as designed and evaluated according to achievement test results, self-concept test results, parent evaluations, and teacher evaluations. Institutionalization of a total multiage grouping will be implemented over a two year period.

CHAPTER II

STATEMENT OF THE PROBLEM

The problem of deciding which method (or methods) of student grouping for instruction became prevalent while the Beaverbrook staff struggled with the issue of trying to change the school's organizational structure from graded to nongraded. Examples can be found in the literature advocating various methods of student grouping for instruction. However, such examples are usually advocated because they have been successful when applied under specific circumstances. It appeared that a simple solution to the problem was to select the desired grouping method being successfully used in another school and institutionalize that method at Beaverbrook to produce the desired results. The probability of the transferred method functioning to a suitable degree appeared to be very doubtful because of different circumstances in the school and community where the copied method was to be tried. It is possible, however, to transfer proven methods of grouping from one school to another if the staff takes extreme care to adjust such methods to the differing situation.

The problem at Beaverbrook School basically was one of deciding which grouping method to try and how to structure such method for desired results. Several methods of grouping had been tried in previous years at Beaverbrook with varying degrees of success, but none have been tried and evaluated to the extent that the staff could advocate them for long-term institutionalization.

Purpose of the Practicum

The basic purpose of the practicum was to identify the most appropriate grouping structure in order to implement a more effective nongraded program in the primary department of Beaverbrook Elementary School.

Objectives

1. To study the literature on grouping in order for the staff to have a good understanding of current grouping trends, with emphasis to be placed on multiage and homogeneous age grouping.
2. To structure multiage and homogeneous age student groupings for instruction within the primary department during the 1975-76 school term.
3. To inform parents about the organizational change and seek their support for the practicum.

4. To pre-test and post-test the students participating in the practicum in order to analyze a sample of the data as a part of the evaluation of the practicum.

5. To draw conclusions based upon the results of the practicum and determine the appropriate grouping methods for future use in the primary department of Beaverbrook Elementary School.

6. To develop plans for full institutionalization (1976-77 school term) of the appropriate grouping methods determined by the practicum.

CHAPTER III

REVIEW OF THE LITERATURE

An abundance of literature can be found on nongraded schools; however, literature on grouping, especially multiage grouping, is limited. The review of selected literature is presented as it relates to the practicum and to the efforts of the author to institutionalize practicum findings for an improved nongraded school.

Smith[2] claimed to produce a step-by-step teaching guide to teaching in a nongraded school but referred to grouping only in a vague context. He advocated that children have a need to work together in order to learn from each other and to develop leadership qualities from such association.

Dufay[3] maintained that each student group should have its share of pupil leaders. He also believed that

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[2]Lee L. Smith, Teaching in a Nongraded Classroom, West Nyack, N. Y.: Parker Publishing Co., Inc., 1970, p. 28.

[3]Frank R. Dufay, Ungrading the Elementary School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1966, p. 36.

the range of abilities among students should be controlled and the inevitable problem children within a total group should be equitably apportioned to each class. This would reduce the probability of any one class group being established with too many problem children, perhaps creating chaos.

Dufay further stated:

> Precision in following a grouping plan is largely controlled by number, i.e., the number of classes to be dealt with. Schools with the smallest number of classes could ordinarily expect the least degree of refinement in grouping.
>
> Proper grouping requires that various other factors be considered, including teacher and even parent personalities. Whatever has a real effect on class make-up must be anticipated, searched for, and eventually acted upon. Final determination is made as a result of a set of values. Is it more important to avoid personality clash or to have even distribution of leadership? . . . ad infinitum.
>
> The grouping aims, as defined, might well be met within the structure of the graded school. They are better met in the ungraded school, all other factors being equal.

Goodlad and Anderson[4] stated that the old-fashioned one room school which was a landmark in most sections of

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[4]John I. Goodlad and Robert H. Anderson, The Nongraded Elementary School, revised ed., New York: Harcourt, Brace & World, Inc., 1963, pp. 68-70.

the United States during the early nineteen hundreds may well have had many of the characteristics now desired for the nongraded program. Some proposed school reorganizational efforts, they noted, have been aimed at trying to recapture some of the potential advantages of the multiage grouping of the one room school. Goodlad and Anderson appeared to have more indepth knowledge about multiage grouping than did the other authors studied in this literature review. They stated:

> Multi-age grouping, or interage grouping as some have called it, has been of interest to educators for many years, yet relatively little basic research on it has been completed. Before the advent of graded organization multi-age groupings were common, and they still are in sparsely populated rural areas. Pupils were grouped this way, however, out of sheer necessity rather than for some logical or theoretical reason. Only as graded practice has come into disrepute, with educators seeking alternative patterns of class organization, has an interest emerged in the multi-age group as a possible educational arrangement.

References were also made by Goodlad and Anderson to doctoral dissertations on multiage grouping done by Foshay, Rehwoldt, and Chace. The Foshay study revealed that multi-age grouping had some social advantages, but most other findings (academic achievement) favored the control graded group. The study by Rehwoldt, however, showed significant

gains in both the social and the academic areas. The study by Chace also found students in the multiage setting made more gains in academic and social development than students who were grouped in single-grade classrooms.

Multiage grouping organizes students much like their daily activities according to Lewis[5]. He believed organizing students in multiage groupings makes the classroom a more compatible situation for learning. Lewis also maintained that multiage grouping has been an effective method for improving the educational programs, especially in nongraded schools, for the following reasons:

1. It induces the teacher to individualize the instructional program to suit a class composed of heterogeneously grouped students.
2. Various discipline problems within the group tend to diminish.
3. There is a high degree of cooperation among all children in the class, regardless of age or ability. This is particularly true in terms of those students who may be older by approximately two years than others in the class, because what has developed in these cases is the "big brother" /"big sister" attitude.
4. There also tends to be a greater degree of independence and individual initiative on the

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[5]James Lewis, Jr., A Contemporary Approach to Nongraded Education, West Nyack, N. Y.: Parker Publishing Co., Inc., 1969, pp. 122-123.

part of the teacher and students in the class.

5. In each classroom, group work and committees can be organized with less delay and with more efficiency because of the leadership which evolves on the part of the older students.
6. A closer to normal situation is provided where students are exposed to other students who differ in age within a two or three year age range. This is the kind of situation to which children are accustomed at home with brothers and sisters, or at play in the community with peers, and one which renders the school setting more natural.

In presenting the Multiphased Primary School concept, Brown[6] made a strong case for dealing with children on the basis of their ability rather than placing undue emphasis on age. He stated:

> One of the chief reasons for today's stormy educational climate is the failure of educational researchers to uncover techniques for predicting the ability of students to do school work on the basis of evidence other than age.

Brown went on to state that the mass movement through 12 grades of school is the most chaotic in the history of graded education. He further reported grouping and moving students on a graded basis has had little effect upon aiding them through the learning process. A strong case of entering children in school by the use of criteria other than being six years of age before a given

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[6]B. Frank Brown, The Appropriate Placement School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1965, pp. 50-51.

cut-off date was also presented by Brown. His point on the significance of what is done with students at a specific age was made by the following statement:

> In one high socio-economic residential area, where there is a predominance of parents with bright children, the school system recently discovered, entirely by accident, that a sizeable number of frustrated parents had forged the birth certificates of their children in order to enter them in school ahead of time. Subsequent checking with the Bureau of Vital Statistics for the correct ages of all the children in the school revealed that, over the years, dozens of students had been entering school before reaching the legal school age. Changing the birth certificates had become a common practice. The most surprising part of the incident was the discovery that invariably the "illegally entered students" had done well in school work. Forging birth certificates cannot be condoned, but the success of these children indicates that a serious ambiguity exists in the practice of using age as the standard for admission to school.

Educators who try to convince others as to a particular type of grouping or individualized method of presenting educational programs to students can make a good case for their methods. Grenis[7] contended that children often learn more from fellow students in group activities than they do from their teachers or independent inquiry. He did not believe total individualization adequately met

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[7]Michael Grenis, "II. Individualization, Grouping, Competition, and Excellence," Phi Delta Kappan, 57, No. 3, November, 1975, 199-200.

the needs of students. He maintained that every individual needs to belong to a group and the grouping process of instruction within the classroom is of utmost importance to children.

Cross-age tutoring which was prevalent in one-room schools was lost when schools consolidated into larger units; however, the concept of cross-age tutoring seems to have made a new appearance during the past decade. Shaw[8] gives examples of the modern version of getting younger and older students working together for the benefit of both age groups. This idea may be executed most effectively through some type of multiage grouping.

Does a child learn better when placed in a homogeneous or heterogeneous group? The biggest obstacle in trying to answer this question comes about when one tries to identify what is meant by "learn." Williams[9] stated that there seems to be no conclusive evidence that ability grouping either helps or hinders academic achievement. She further believed research on grouping methods has been

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[8]Jane S. Shaw, "Cross-Age Tutoring: How to Make It Work," The Education Digest, 38, No. 7, March, 1973, 41-44.

[9]Mary Heard Williams, "Does Grouping Affect Motivation," The Elementary School Journal, 73, No. 3, December, 1972, 130-137.

chiefly concerned with the effect that a grouping method has on a student's scholastic progress and has not provided enough information on how grouping might affect other aspects of learning. However, she believed how children are grouped in elementary school classes affects the total environment in which the child is operating.

The method of grouping students may have an effect on a child's self-concept. Many educators believed that a negative self-concept had a high correlation to low academic attainment. Leonetti and Muller[10] believed that the negative self-concept theory accounted for Spanish-surnamed students having lower achievement scores than their Anglo middle-class counterparts. Chang[11] also addressed the problems Korean-American and Black American children have with self-concept. Neither Chang nor Leonetti and Muller expressed any specific or preferred method of grouping students. However, this writer believed their information to be of significant value and decided to record a brief of their work in the

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[10]Robert Leonetti and Douglas G. Muller, "The Spanish-surnamed Child: Self-Concept and School," The Elementary School Journal, 76, No. 4, January, 1976, 249-255.

[11]Theresa S. Chang, "The Self-Concept of Children in Ethnic Groups: Black American and Korean American," The Elementary School Journal, 76, No. 1, October, 1975, 53-58.

literature review of this report because the practicum deals with a child's self-concept in relation to grouping.

Homogeneity tends to breed more likeness among students when they are placed in homogeneous classes. Such classes are usually developed according to academic achievement of the students. Therefore, most of the slower students are placed in one class and most of the brighter students in another class, at opposite ends of the grouping spectrum. Studies show that students in the "slow sections" (low ability group) develop a poor self-concept, while those in the "fast sections" (high ability group) develop an attitude of superiority relative to those students in the "slow sections." In their discussion and review of recent studies on heterogeneous grouping, Martin and Pavan[12] stated:

> The usual arguments for heterogeneous grouping include: 1) Homogeneous grouping is undemocratic and affects the self-concept of all children adversely by placing a stigma on those in lower groups, while giving other children an inflated sense of their own worth; 2) most life experiences do not occur in homogeneous settings, and students must learn to work with a wide range of people; 3) students of lesser ability may profit by learning with those of greater ability; 4) heterogeneity allows different patterns of abilities and

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[12]Lyn S. Martin and Barbara N. Pavan, "Current Research on Open Space, Nongrading, Vertical Grouping, and Team Teaching," Phi Delta Kappan, 57, No. 5, January, 1976, 312.

needs to emerge within a group of children; and 5) homogeneous ability grouping may segregate children along SES and ethnic, as well as ability, lines.

It appeared that most educators believe that ability grouping of students increases competition and thereby creates greater motivation; however, Martin and Pavan referred to the Morse study and the Zweibelson study which indicated motivation to be severely decreased by ability grouping.

Proponents of multiage or family grouping believed it offers a more open setting within the classroom. They also believed multiage grouping fosters the socialization of younger children into the academic setting. The younger children are supposed to learn from the older children, and the older students should gain in leadership ability as they learn to work with the younger children. Day and Hunt[13] believed multiage grouping lightens the teacher's load and allows him to more adequately meet individual needs of his students.

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[13]Barbara Day and Gilbert H. Hunt, "Multiage Classrooms: An Analysis of Verbal Communication," The Elementary School Journal, 75, No. 7, April, 1975, 458-464.

The basis of their belief is:

> There are three main reasons why the teacher is supposed to be able to give more individual help in a multiage setting than in a traditional setting. First, the older children are familiar with the system and need less guidance at the beginning of the year than the pupils of the so-called traditional school do. Second, the staff is already familiar with the needs of the children who were in the system the previous year. Third, the children can absorb some of the staff's load by helping one another.

Wolfson[14] described the Torrance Unified School District in Torrance, California, as advocating and encouraging multi-grade grouping. In her article written in 1961 for Elementary English and included that 26 of 30 elementary schools had moved to multi-grade grouping on a volunteer basis. It was stated that students demonstrated greater personal and social growth while in the multiage groups.

Chace[15] conducted a study in Tennessee evaluating classroom results in which two to four different grade levels were taught by one teacher compared to matched-grade or homogeneous age groupings. He found that

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[14]Bernice J. Wolfson, "Multi-Grade Classes," Elementary English, 38, December, 1961, p. 590.

[15]E. Stanley Chace, "An Analysis of Some Effects of Multi-Grade Grouping in an Elementary School," Doctoral Dissertation, University of Tennessee, August, 1961, Dissertation Abstracts, 22, pp. 3544.

students in multiage groupings showed a slight, but consistent, advantage over students in the homogeneous age groupings in academic achievement and a slight advantage in personality and social development. Chace also found that parents accepted the theory of multiage grouping but did not accept the practice.

Drummond[16] predicted at a U. S. Office of Education Conference that multi-grade grouping will return as a major grouping method in the future.

The study made by Rehwoldt and Hamilton[17] favored multiage grouping because of the positive attitudes among parents, teachers, and administrators. They noted improvements in the pupil-pupil relationships as well as pupil-teacher relationships.

Neill[18] reported that 37 per cent of the district's schools in San Diego use a multiage method for grouping primary and pre-primary students and that the public has

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[16]Harold Drummond, "Grouping: A Preliminary Statement," School Life, 45, June, 1963, pp. 9-10.

[17]Walter Rehwoldt and Warren W. Hamilton, "An Analysis of Some of the Effects of Interage and Intergrade Grouping in an Elementary School," Doctoral Dissertation, University of Southern California, January, 1957.

[18]Shirley Neill, "Self-Starting School," American Education, 11, October, 1975, pp. 25-29.

accepted the program to the extent that there is a waiting list of parents who wish to enroll their children in the classes. Neill stated that labels on classrooms and children had vanished where the multiage grouping was used.

Smith[19] reaffirmed Neill's statement by noting a feature characteristic of the multiage grouping method is it eliminates "repeating labels" for slow learners and "skipping labels" for gifted students. He stated there are no failures under the plan; students are simply regrouped for the next school term. Smith advocated regrouping students on the basis of reading achievement rather than chronological age; however, Dunn and Dunn[20] believed different learning styles of children should be fitted to appropriate programs. Therefore, they advocated the identification of a child's learning style before he is assigned to an open classroom, traditional classroom, or an alternative program which would match his learning style profile. The Dunns stated that

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[19]Lee L. Smith, A Practical Approach to the Nongraded Elementary School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1968.

[20]Rita Dunn and Kenneth Dunn, "Learning Style As a Criterion for Placement in Alternative Programs," Phi Delta Kappan, 56, December, 1974, pp. 275-278.

environmental factors should be a part of establishing a child's learning profile. Environmental factors that affect how much a child is able to learn in a given time include such variables as sound, light, temperature, and physical setting. They maintained some children can block out and compensate for certain conditions, whereas others cannot block out, for example, excessive noise. Such learning conditions, as mentioned by the Dunns, could have an effect on the child's attitude relative to his classroom assignment.

Vogel and Bowers[21] reported on a study which used a multiage nongraded and a graded traditional school to evaluate student attitudes, achievement, and behavior. At the end of the study the students were tested and the results indicated the nongraded, multiage form of organizational structure encouraged student development in conceptual maturity and participation in group activities. Teachers in multiage, nongraded structure were more tolerant of disorderly and disruptive student behavior than were teachers in the graded school.

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[21]Francis X. Vogel and Normal D. Bowers, Pupil Attitudes, Achievement and Behavior in a Multi-Age Nongraded School: Final Report, Evanston, Ill.: Northwestern University, 1968.

Pavan[22] concluded the nongraded structure for elementary school organization has achieved favorable evaluations in a survey of the research between 1961 and 1968. The analysis of the research led to five discoveries:

1. Educational research is still difficult.
2. The terminology of nongradedness is changing. More positive labels are being used such as open, individual, and continuum.
3. Comparisons of graded and nongraded schools using standardized achievement tests continue to favor nongradedness.
4. Nearly all recent research studies include a mental-health component, and results favor nongrading.
5. The research indicates three other tendencies in nongraded structure:
   (a) fewer children are "retained"
   (b) beneficial for boys, blacks and under-achievers
   (c) students work more frequently individually or in small groups.

Pavan revealed that several authors have advocated multi-age or multigraded classes as a step in the direction of developing a more effective nongraded program. She referred to the Junell study which compared students in the junior high school who had gone through six years of traditional elementary school with students who had experienced six years of multiage education. Students from the graded school had more negative attitudes toward

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[22]Barbara Nelson Pavan, "Good News: Research on the Nongraded Elementary School," The Elementary School Journal, 73, No. 6, March, 1973, pp. 333-340.

self and school than those from multi-graded elementary schools. It was also found that measures obtained on the Index of Adjustment and Values, Borg's Utah State University School Inventory, and the California Test of Personality generally favored the group with the multi-graded elementary schools.

Smith[23] found that the Appleton, Wisconsin Public Schools ". . . are making practice keep pace with knowledge of children by changing school organization to fit individual needs." She stated that children were moved from group to group because of need, not only when the school term had come to a close, but at anytime deemed necessary. Further, she described how the Appleton Elementary Schools were organized in large blocks of time for kindergarten, primary and intermediate students. The student could possibly remain in a group attempting to work through a time block for several years--depending upon the child's needs rather than his age, achievement, or any single factor.

Schrankler[24] observed "the child has been the

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[23]Lois Smith, "Continuous Progress Plan," Childhood Education, 37, March, 1961, pp. 320-323.

[24]William J. Schrankler, "Family Groupings and the Affective Domain," The Elementary School Journal, 76, No. 7, April, 1976, pp. 432-439.

forgotten part of the organizational patterns of schools." He referred to the many organizational plans which have filled professional journals with results of educational research focused on the differences in skill acquisition; however, Schrankler believed that little effort was given to assessing the effects of the patterns on the child himself.

A study to investigate the effect of multiage grouping on children's self-concepts and their attitudes toward school was reported by Schrankler. Three groups were used in the study and they were identified as: (1) complete multiage, (2) restricted multiage, and (3) the unit-age. An inventory test was administered with a design to assess the child's concept of his successes in school or as a person who has ability. The data from the inventory tests showed the restricted multiage and the complete multiage groups scored higher than students in the unit-age groups.

A picture choice evaluation instrument was given to measure a child's interest in subject content areas. The results, again, favored the restricted multiage and complete multiage groups over the unit-age groups.

One of the most dramatic differences appeared when an instrument was applied to assess the child's perceptions of the social structure and general climate of the school. The results of the tests indicated a clear-cut advantage for the multiage groups, especially the complete multiage groups.

In the report of the study, Schrankler stated, "Some educators believe that school attendance is an indication of a child's feelings toward school." Attendance records were compared on the three methods of grouping and the multiage groups had slightly higher mean yearly attendance; however, the differences were significant only for five year old children.

Schrankler's study found no significant advantages in academic achievement except in mathematics where the restricted multiage groups scored consistently higher. Most other studies found the same to be true with respect to academic achievement when multiage groups were compared to unit-age groups.

Parents were given a questionnaire to evaluate the study reported by Schrankler. Forms were mailed to 110 families and 42 families responded. Positive reactions

from the parents outnumbered negative reactions five to one.

Through the study of the literature it was found that several authors advocated multiage grouping as a possible step in the direction of developing a more effective nongraded program. The literature study reinforced the belief advocated by the Beaverbrook School principal that children often learn more from fellow students in group activities than they do from their teachers; therefore, the multiage method would probably enhance learning due to students being involved with peers of varying ages.

It was discovered in the study of the literature that multiage grouping methods did not solve all of the problems relative to grouping students. There were negative as well as positive aspects of grouping methods reported in the literature study. The positive effects of multiage grouping appeared to coincide with the purpose and objectives of the practicum; therefore, such positive material was studied with greater intensity by the staff.

The study of selected literature noted the effects of multiage grouping on children's self-concepts and

the possibility of a more positive attitude toward school could be developed. Due to the finding in the literature relative to self-concept, it was decided to measure and evaluate it as a significant part of the practicum.

The director of the practicum believed that participating teachers needed to read and discuss pertinent material found in the literature; therefore, he photocopied such material and distributed it to them during meetings which were held specifically for discussion of the study of the literature. It appeared that such discussions gave the teachers a more affirmative attitude toward the practicum during the planning stages. The principal also believed that the method used to study and discuss the literature gave the teachers a sense of assurance once the practicum was implemented.

CHAPTER IV

PRACTICUM DESIGN

The practicum was designed by the principal and teachers in the primary department of Beaverbrook Elementary School. The intent of the practicum was to bring about change in the organizational structure of the primary department of the school. The basic practicum design was developed in April of 1975, with the homogeneous age and multiage groups to be instituted into the 1975-76 school term in September of 1975.

School System

The Griffin-Spalding County School System has an enrollment of approximately 10,000 students. The students come from primarily middle class socio-economic families who work in light industry in Griffin or various industries and professions in the Metro-Atlanta area. The student and teacher population reflects the community racial percentage of 35-65 with the white race in the majority.

There are 11 elementary schools, 3 junior high schools, and one high school in the system. An area

Vocational-Technical School is located in the system and is governed by a local board of directors which is separate from the local school board. It is probably safe to place both boards and the top administration of both in the conservative category; however, there are signs of change appearing with both school institutions.

School and Community Setting

The Beaverbrook School community came into existence in 1964 when three smaller school districts were consolidated. A new school facility was erected because of growth in the population within the three existing school communities. The Beaverbrook School district lies approximately five miles north of Griffin, Georgia, and 30 miles south of Atlanta, Georgia. Approximately one-half of the families living in the school district have arrived in the past 10 or 12 years. Many of the new arrivals to the community are employed in the Metro-Atlanta area, with a large percentage of those working in the Atlanta Airport or automotive manufacturing industries which are located on the south side of Atlanta. The school district is closer to the Metro-Atlanta area than any district within the Griffin-Spalding County

School System.

The school has a wide range of students in respect to intelligence, pre-school experiences, and socio-economic status. It has students from the wealthy as well as families supported by the welfare system.

The Black population has diminished in the school district during the last 10 years because farms have been replaced with houses and most Black families have moved into the city. The Black population is approximately 10 per cent at the present time; however, the school faculty is 26 per cent Black.

Organizational Structure

When this writer became Principal of Beaverbrook School, classes were grouped by academic ability. Each grade level was divided into a low, average, and high ability group. It soon became apparent that most teachers desired to teach the high or average group on their grade level. They were also reluctant to change grade levels but would if they could teach the "high" group of students.

Parents who had children in the high group appeared

to like the ability grouping system; whereas, most parents with children in the average and low groups were constantly trying to push their children into a higher group. Students in the high group perceived themselves as the elite students in the school; whereas, those in the low group had a very poor self-concept.

The school was structured strictly on a graded basis with the ability grouping and letter grades highly stressed. The "Honor Roll" (A's and B's) and the "High Honor Roll" (A's) system was used to recognize academic excellence. It is obvious that most of the praise was given to those students in the high ability groups on each grade level. Letter grades were highly valued by parents as well as students.

This participant was named principal of Beaverbrook Elementary School in 1968. He spent that year concentrating on learning the staff and trying to understand the philosophy and functions of the school. He had previously taught in Melbourne, Florida, and had been heavily influenced by a colleague, Dr. B. Frank Brown, in the nongraded structure for school organization. He was committed to the nongraded school structure and spent the next year,

1969, preparing the staff and community for changes which he deemed necessary for school improvement.

By the time school opened in the fall of 1973, approximately 75 per cent of the 1968 staff had been replaced with younger teachers who were willing to help the principal implement organizational changes. Ability grouping had disappeared and so had the honor rolls. Letter grades were replaced with "S" and "N" (Satisfactory and Needs Improvement). The principal was granted permission by the system superintendent to deviate from the standard report card and the staff developed a reporting system which would better meet the needs of the students. None of these changes came about without some parent and community resistance. The staff sponsored numerous seminars for parents during the time of change. Such parent seminars are still taking place because basic changes are continuing to be made by the staff in their search to establish a better school.

In 1974, the staff tried team teaching in two classes composed of first year (six years old) students. Each class was composed of two teachers and 34 students. The evaluation again was primarily subjective and it was

decided that team teaching did not meet the needs of the students as desired by the teachers.

Student grouping for classroom groups during the school terms of 1971 to 1974 was done primarily at random. The weakness of random grouping was that teachers sometimes found their group to be without leaders, to be overloaded with children with emotional problems, to have too many boys or girls, or too many students working near the same level which got back to the problems of ability grouping.

At the beginning of the 1974-75 school term, it appeared that grade labels on students had almost vanished as far as the faculty was concerned; however, some parents continue to place a grade label on teachers' rooms or their child who has been in school a given number of years.

Practicum Organizational Structure

In the fall of 1974 the principal and primary teachers discussed possible ways to reorganize the primary department of Beaverbrook School for the purpose of improving instructional grouping. The decision was made to review current selected literature with each

teacher sharing any interesting findings with the staff. Monthly meetings were held for such discussions between October of 1974 and March of 1975. During this period, the staff members involved in the practicum identified specific information pertaining to grouping, and pertinent materials were copied, distributed, and discussed among the staff in an effort to be better informed about the task before them.

In April of 1975 the staff began to look at possible ways to bring about structural change in the organizational composition of the primary department of the school. Through the literature study and with some knowledge by the principal and teachers about multiage grouping, it was decided that multiage grouping could possibly be the vehicle by which structural change could be made in the primary school organizational structure.

In the initial phases of the discussions of how the organizational structure could be changed, the faculty discussed team teaching, homogeneous grouping by ability and semi-departmental grouping as other methods which could be used as possible methods to bring about the desired changes. Keeping in mind the underlying factor of the desire to develop a more effective nongraded

instructional program, it was decided from the knowledge gained that the multiage grouping method would possibly bring about more and better individualized instruction than the other methods discussed.

The multiage grouping method for instruction was decided upon over the other methods discussed because it appeared to be the most appropriate method for allowing students individual growth in both academic and social aspects of their development. The other methods, team teaching, ability grouping and semi-departmental grouping, had been tried during the previous six year period and none of them produced the desired results. Multiage grouping had not been previously used and it appeared to be the most suitable method relative to the aforementioned concerns. It also seemed to be the best method when considering staff attitude, available classroom space, equipment and material.

A tentative outline of what could be formulated to establish multiage instructional groups was made. It was resolved that: (1) plans for the 1975-76 school term would be finalized in May of 1975, (2) only partial multiage grouping should be instituted during 1975-76, (3) some formal means of evaluation should be established to help the community to accept the change, (4) class groups would be

developed in May of 1975 for implementation at the beginning of the next school term, (5) all teachers in the primary department would support the practicum regardless of their assignment of students and to help with parental acceptance of the practicum.

The practicum participants were aware of the time and efforts that would be required from April of 1975 to April of 1976; therefore, they made a commitment to the principal to give full support to the practicum for its duration.

Evaluation

The principal and teachers decided that a valid evaluation of the practicum would need to be made in order to prove to the parents and the school system administration the values of the practicum. Those participating in the practicum believed in what they were doing to the point that they felt some positive aspects could be shown through the evaluation methods which they were building into the practicum.

1. Statistical Evaluation: The rationale for a statistical evaluation evolved from an awareness of the practicum participants about the conservative attitudes among parents, some school board members, and some systemwide administrators within the school system. In order to prove that grouping by a multiage method was not detrimental to the students, it was felt that

a formal testing program should be administered with a pre-test and post-test design as part of the practicum.

2. Parents' Evaluation: The principal and teachers agreed that parents should be involved in the practicum. A plan was to be developed in May of 1975 for parents' participation and evaluation.

3. Teachers' Evaluation: The teachers involved in the practicum felt they should have an opportunity to evaluate the practicum at its completion. They were aware of the fact that a subconscious evaluation would be formed in a subjective manner during the execution phase of the practicum; however, it was their desire for the principal to develop a questionnaire for gathering individual teacher evaluation relative to the practicum.

CHAPTER V

EXECUTION OF THE PRACTICUM

The planning period for the practicum was October of 1974 through March of 1975. The practicum design was mapped out in April of 1975 and actual execution of the practicum was begun in May of 1975 when the principal and primary teachers of Beaverbrook School developed the plan for institutionalizing a multiage grouping method for one half of the students enrolled in the primary department. It was not until the opening of the 1975-76 school term, however, that multiage and homogeneous age groups of students were actually put into the classrooms. From mid-April through the first week in June of 1975, the following major components of the practicum were accomplished: (a) teacher characteristics were studied and their strengths and weaknesses were evaluated relative to the practicum, (b) teachers were prepared to execute the practicum, (c) students were grouped into class groups, (d) preparation for the 1975-76 school term was made, (e) preliminary plans were established for parent orientation.

Teacher Characteristics

During the planning stages of the practicum, only a few teachers appeared to be intrigued with the possibility of teaching a multiage class during the 1975-76 school term. The principal observed attitudinal changes in most of the teachers as they studied the literature, held group meetings for discussions, and shared their thoughts; attitudinal changes were particularly noticeable during the planning phases when actual student groups were being formed.

The primary department had 13 classroom teachers and one teacher who was working as a resource teacher with them. There were seven teachers working with multiage groups and six working with homogeneous age groups.

Data supporting the comparability of the two groups is noted in averages in the following charts.

	Multiage	Homogeneous
Teacher Age	31.3	34.7
Experience (School)	3	4
Experience (System)	5.7	4.5
Experience (Total)	9.6	9.2

	Multiage	Homogeneous
B. S. Degree	5	4
M. A. Degree	2	2

It was felt by the principal that the faculty was evenly distributed into the two groups. It was ironic that the data were extremely close because the teachers were selected at random by the principal in the beginning of the practicum. The principal asked each teacher if she felt comfortable in working with the multiage or homogeneous age groups. All but one teacher stated that the assignment was her choice. The teacher who was hesitant about her assignment was given a chance to work out a change if she felt that her assignment was overwhelming, but she refused. No teacher appeared to be working in a situation which would make her anxious or unhappy.

Teachers in both groups had a comparable teaching situation in that all of them had equal access to like and unlike materials and equipment. The teaching time was the same for both groups. The basic difference was in the two types of grouping; virtually all other

variables and strategies were the same. However, considering normal individual personality differences within teachers, one could never assume classroom environments to be identical.

Teacher Preparation

During the preparational study--the design and planning phases of the practicum (1974-75 term), all teachers except one signed a contract to teach in the primary department at Beaverbrook School. The one teacher who did not return was replaced by a highly qualified professional who had previous teaching experience with primary multiage students. The teacher was employed in another school within the Griffin-Spalding County system and made a transfer to Beaverbrook at the close of the 1974-75 school term. The transfer was approved in April of 1975 and that enabled the teacher to participate in the planning stages of the practicum during April and May of 1975.

Teachers were prepared for the practicum mainly by discussing the findings in the literature and by holding open discussions as to what each thought about the practicum idea of experimenting with two methods of

grouping students during the 1975-76 school term. A major responsibility of the principal was to insure each teacher a right to be heard in order to present a comfortable atmosphere which would provide for negative as well as positive comments and reactions. The principal believed the efforts made in the area of preparing teachers for the practicum produced dividends when the time came to inform parents of the two methods of grouping to be instituted in the fall of 1975.

Grouping Students for the Practicum

During May of 1975 the principal and teachers went about the task of grouping the 317 primary students who were registered for the 1975-76 school term. Their task was to develop 13 classroom groups of students, six of which would be homogeneous age classes and seven would be multiage classes. The major problem the teachers and principal faced was grouping on an equitable basis so that the groups would reflect equal student distribution. Therefore, class grouping of students was based on placement procedures advocated by DuFay[25]. The staff modified DuFay's placement system to meet its needs in

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[25]DuFay, op. sit., p. 44.

building the instructional groups. A form was prepared (see Appendix A) and teachers placed pertinent information concerning each child on his form. The information exhibited on the form revealed the child's birthdate, race, sex, reading level, mathematics level, leadership ability, unusual problems in behavior, emotional or physical disorders.

The criteria used as a basis in establishing the multiage and the homogeneous age groups were the same. The staff made an effort to place an equal number of boys, girls, blacks, whites, leaders, emotional and behavioral problems in all classes representing both the multiage and homogeneous age classes. The age range at the beginning of the school term was 5 years - 8 months to 9 years - 2 months in both groups and student ages were basically comparable.

Another criteria used was academic achievement and it was done on the basis of reading and mathematic development along with the subjective judgment of the teacher in other academic areas.

Comparability was also sought between groups in I.Q. measurement and socio-economic status. Approximately 57 percent of the students were grouped in multiage classrooms and 43 percent in homogeneous age classrooms.

The next step was the monumental task of actually putting students into groups. It was decided perhaps the best way to accomplish the task was for the present teachers of each specific homogeneous age group to build the homogeneous and multiage groups for the next school term. The procedure was functional in building the homogeneous age groups but was not functional in building the multiage groups because each group of teachers needed to be together to communicate orally as they made specific student recommendations for the multiage groups. The procedure was altered in order that all primary teachers could meet together for the constructing of multiage groups. It was soon discovered that building multiage groups was much more difficult than establishing homogeneous age groups because of the

above stated factor of having a much larger number of teachers involved in the process.

When the task of building student groups was completed, the principal felt that equitable groups had been developed for the homogeneous and the multiage classes. The principal delayed the decision of who would teach the homogeneous and multiage groups until the construction of all groups was completed. By such action he was assured that teachers could not collaborate in selecting students for their own classes. The principal had charged the teachers in the beginning with the task of building groups with such equality that each teacher would be satisfied with any class which she might be assigned. That strategy appeared to instill a high degree of honesty into the teachers as they developed classroom groups of students.

School Term 1975-76 Preparation, Execution

During the first week in June of 1975 the classroom groups were completed and all records were placed in each child's record folder. Teachers were anxious to receive a classroom group assignment in order that they could plan during the summer vacation for either the homogeneous

age or multiage group. The principal felt that 12 of the 13 teachers would have received either assignment (homogeneous age or multiage classroom group) with an attitude which would have produced a good learning environment for the students. The principal put each teacher's name on an index card, placed the cards in a box, and drew seven cards indicating the teachers who would receive the multiage groups. When the teachers met on the following day, the principal read the seven names of teachers who would receive the multiage classroom groups. Six of the seven teachers appeared to be pleased with the assignment; however, one teacher, the oldest teacher on the staff, appeared to be displeased and she expressed concern that she could not meet the needs of the students under the multiage grouping method. The teacher was given an opportunity to trade her assignment with a teacher who had received a homogeneous age group but she refused the exchange.

The decision had now been made as to who would teach the homogeneous age and the multiage classes. The principal moved to the next phase in the process of establishing the organizational structure for the primary

department for the next school term--that of assigning students to teachers. He had arranged the record folders of students in the homogeneous age and multiage classroom groups in stacks. It should be noted that the primary teachers had established the groups of students during the previous month. The principal proceeded to hand each teacher a stack of records which were labeled homogeneous age or multiage according to the previous grouping assignment which he had made at random for each teacher.

The principal and teachers had decided in May of 1975 not to inform parents about the grouping plans for the 1975-76 school term until the term began in August of 1975. The rationale for the decision was based on the fact that giving parents a limited amount of information would only create doubt and suspicion on the part of some parents and it would give them time during the summer vacation to organize a force against the plan and possibly defeat it before it could be institutionalized. The staff thought no information to the parents would be better than a limited amount. The teachers also decided that it was extremely important for them to be well informed about the total plan for grouping students

during the 1975-76 term even if they had drawn the assignment to teach a homogeneous age group. They were aware of the problems which could develop among parents in a major change in the organizational structure in the primary department of the school.

The next meeting of the primary teachers was devoted to discussing how the parents should be informed about the grouping methods when school opened for the 1975-76 term. Out of that discussion came more concern about staff attitudes toward the grouping methods. It was decided that the first week of the new term would have to be the best in the history of the school because the teachers would have to sell the program to the parents and prove they could make it function properly.

The staff believed information seminars for parents would be the best way to inform them in a comprehensive manner of the two types of grouping being used. A basic outline was made for two parent seminars and the dates were established. It was concluded that primary teachers would need to be precent at the seminars but they would not enter into discussion with parents during the seminars. The task of presiding over the seminars and answering

questions would be the task of the principal.

On June 12, 1975, the Beaverbrook School principal met with several educational leaders who are employed by the school system. Thomas Jones, Assistant Superintendent for Instruction; Walker Cook, Director of Curriculum; and Vickie Ricketts, Reading Consultant, met with him to discuss the practicum design and its implementation. He had talked with each colleague individually previous to the June 12 meeting and they had assured him of their interest and support. However, the principal felt it necessary to discuss the practicum with the group so that they would have a total understanding of the nature and objectives of his work and their roles in it. The three individuals named above along with Superintendent D. B. Christie served as observers to the practicum.

On June 18, 1975, the principal met again with Walker Cook to study the testing materials which could be used as a part of the evaluation of the practicum. Mr. Cook had a graduate degree in Testing and Counseling; therefore, the Beaverbrook principal relied on Mr. Cook's expertise to help him to choose the Cooperative Primary Tests published by Educational Testing Service of

Princeton, New Jersey.

On June 19, 1975, the principal met again with Vickey Ricketts to review possible self-concept tests which could be used in the practicum. A decision could not be reached as to the best self-concept test to use because the tests reviewed did not appear to be suitable for young children. Ms. Ricketts referred the principal to Dr. Joseph Ridky, Director of Psychological Services for the Cooperative Educational Services Agency, Griffin, Georgia. Dr. Ridky was knowledgeable about a relatively new self-concept test which was designed for use with young children. It was decided the most appropriate test to use was the "I Feel . . . . . Me Feel" Self-Concept Appraisal and Dr. Ridky was extremely helpful in securing the test for the Beaverbrook School principal.

Final selection of instruments for pre- and post-testing (See Table 1) was made and the tests were ordered in July to assure that they would be on hand when testing began at the opening of the school term.

Information concerning the two methods of grouping had been gathered by a few parents and approximately 10 to 15 of them telephoned the principal during the early

Table 1

PRE-TESTS AND POST-TESTS APPLIED

Groups Tested According to Number of Years in School	Type of Test	Pre-Test Test Form Fall 1975	Post-Test Test Form Spring 1976
1st Year in School	Reading Readiness Mathematics Readiness Self-Concept	Metropolitian Readiness I Feel...Me Feel	* 12 A * 12 A I Feel...Me Feel
2nd Year in School	Reading Mathematics Self-Concept	* 12 A * 12 A I Feel...Me Feel	* 23 A * 23 A I Feel...Me Feel
3rd Year in School	Reading Mathematics Self-Concept	* 23 A * 23 A I Feel...Me Feel	* 23 B * 23 B I Feel...Me Feel

*Cooperative Primary Test, Educational Testing Service

part of August, 1975. Most of the parents were simply curious about the plan and agreed to wait and receive complete details when school opened. The principal became apprehensive that a negative effort might develop by some parents and impair the implementation of the grouping plan.

The staff reported to Beaverbrook Elementary School for the pre-planning work on August 19, 1975. Meetings were held during pre-planning and final preparations were made for the opening of the 1975-76 term. The principal met with the primary teachers the last day of pre-planning to re-emphasize the need for an "Excellent First Day" and to discuss the need for good public relations that must be established to insure parental acceptance of the major organizational change in the primary department. The teachers appeared to be certain of what they were doing and they exhibited an air of confidence that was reassuring to the principal.

Most of the teachers were in the building during Saturday and/or Sunday before the opening day of school on Monday, August 25, 1975, planning and preparing their rooms for the new term. The principal had not requested

the teachers to work during the weekend; instead, they were working because it was their desire and commitment. The principal had informed the teachers that the building would be open for those who wished to work and that he would be there to help them if they needed his assistance.

On Sunday evening before the students were to enroll on Monday, the principal visited the 25 classrooms in the quiet and solitude of an empty building which would be filled with approximately 700 students within hours. In his solitude he could not help but feel the cooperation and superior efforts which his staff had rendered to make the school look and feel so beautiful. Every room looked warm and comfortable, and there was a degree of enthusiasm in simply entering each classroom. The principal had never seen the school better prepared for the first day of a new term.

On opening day, August 25, 1975, a list of students was posted beside each classroom door. That was the moment the staff had been anticipating and wondering how parents would react to multiage grouping. There were many questions to answer and the teachers did a wonderful job in public relations with the parents on that day.

Parent Preparation

Perhaps the most important thing that was done on opening morning was the issuing of written invitations to parents who brought children to the multiage classroom inviting them to the information seminar to be held the following evening at the school. At the end of the first day of school, all primary students were given a written memorandum to take home inviting their parents to the information seminar. No students were moved from the multiage to the homogeneous groups or vice versa during the first two days of school. Parents who made such requests were asked to delay until after they had attended the seminar.

The staff had estimated that approximately 30 parents would attend the seminar and they were surprised to see 63 parents in attendance. The principal conducted the meeting and used the following format:

1. Welcomed the parents and introduced teachers at the beginning of the meeting (7:30 p.m.)
2. Reviewed philosophy of the school
3. Reviewed the basic goal of establishing a more effective educational program for students

through a nongraded structure;

4. Explained the two grouping methods being used (multiage and homogeneous age);
5. Requested parents to let their children remain in their assigned classes until September 8, 19[illegible] (one school week), before they requested a transfer to a different group;
6. Asked for general questions (the principal answered seven questions);
7. Announced the next seminar would be held on September 4, 1975, at 7:30 p.m.;
8. Gave interested parents a photocopy of article on multiage grouping;
9. Adjourned the meeting at 9:00 p.m.

The day after the first information seminar five parents came to the principal with specific questions. Three of the five had attended the seminar and two of those three requested their children be changed from the multiage group to the homogeneous age group. When the principal realized the parents would not be happy with their children in the multiage group, he authorized the two children's transfer to the homogeneous age group.

Later, during the first week of school, another parent appeared before the principal and requested that her child be changed from the homogeneous age group to the multiage group and the request was granted. During the second week of school two other parents made requests of the principal to change their children to homogeneous age groups and the changes were made. Approximately seven other parents discussed changing their children but allowed them to stay with their original assignment after lengthy discussions with the principal. In summary, five students were changed, four from the multiage to the homogeneous age group and one from the homogeneous age to the multiage group.

The second information seminar for parents was held on September 4, 1975, at 7:30 p.m. in the school media center. Only 9 of the 36 parents who attended the second seminar had attended the first; therefore, the principal used the same basic format as was used in the first seminar. The parents who attended the second seminar did not appear to be as interested as those who attended the first. The principal had one parent who had attended both seminars who requested a change be made for his child from the multiage to a homogeneous age group.

After that time, no other parents requested such changes for their children. The changes made for students from one group to another totaled six; the principal and staff had anticipated twice that number.

The school Parent-Teacher Association publishes a newsletter monthly and the principal used the September issue to invite interested parents to the school for observation and visitation, and to volunteer as parent aides. The principal made a similar appeal at the September meeting of the Parent-Teacher Association. Parents worked throughout the 1975-76 school term as volunteer aides in approximately the same numbers as in previous years. Those who worked in such positions became valuable to the practicum as a public relations unit which functioned as a liaison between the staff and other parents.

Pre-Testing

The pre-testing phase of the practicum was administered during the third week in September, 1975. The reading and mathematics achievement tests were given before the Self-Concept Appraisal Tests. The results of the tests were recorded, and made available to teachers to aid them in assessing the achievement and self-concept

of the students in their classes.

The following tests were administered in the pre-test phase of the practicum:

1. Metropolitan Readiness, Form A was given to all students in their first year of school;
2. Reading Achievement, Form 12A and Mathematics Achievement, Form 12A were given to students in their second year of school;
3. Reading Achievement, Form 23A and Mathematics Achievement, Form 23A were given to those students in their third year of school;
4. I Feel . . . . . Me Feel Self-Concept Appraisal was given to all students in the primary department.

January, 1976, was considered to be the mid-point in the time line of the practicum. The staff had predetermined that intelligence tests would be given during January; therefore, the Peabody Picture Vocabulary Tests were administered to all primary students for the purpose of securing I.Q. scores.

The principal and teachers also wanted to evaluate the child's achievement in relationship to his socio-economic status. A housing index was used to establish

a factor which would indicate to a degree the monetary worth of the family. Teachers established the number of rooms in the child's house and divided that number by the number of people living in the house.

Classroom Functions--1975-76 School Term

In planning for the implementation of the practicum at the beginning of the 1975-76 school term, the principal and staff made an effort to assure all primary teachers access to materials, equipment, and supplies on an equitable basis. All hardware and software were placed in the newly renovated media center and a checking system was established for such items. Supplementary reading books, reading labs, and reading materials accompanied by cassette or phonograph recordings were placed in a central supply room where the primary department curriculum coordinator dispensed the materials as requested by the teachers. The 1975-76 school term was the first time that software was distributed with the guidance of a coordinator. This method of distributing reading materials proved to be a great improvement over the previous practice of allowing certain teachers to house the supplies in the storage areas within their classrooms.

Parents were encouraged to work with the primary teachers throughout the year as parent aides. The usual pattern for this type of volunteer service is that parent aides are in plentiful supply from September through November of each school term; the supply of such aides diminishes as the school term progresses along its time line. Therefore, the staff has observed that only those parents who have a sincere desire to help develop a better school program continue to help the teachers during the spring of each school term.

All of the 13 teachers in the primary department used parent aides in varying degrees. Records were not kept in order to ascertain whether or not teachers with multiage or homogeneous age groups utilized parent aides to a larger degree. The use of such aides and the amount of time spent with them was left to the discretion of the individual teachers.

The teacher of the behavior disordered children was scheduled for 30 minutes in each primary classroom on a weekly basis for the purpose of helping students develop a better self-concept. The Duso Kit was used as the major teaching tool in this endeavor. Her duties of

teaching the behavior disordered were based on need and no records were kept on the numbers of students she taught from the multiage and homogeneous age groups. The same was true in relationship with the teacher of the learning disabled children. Her duties were also based on need and no records were kept on which children came from which group.

Field trips and community resource people were used in approximately the same proportion by the multiage and the homogeneous age groups. Here again, records were not kept on each group because it was not a part of the practicum design and it did not appear to be germane to the final results of the practicum.

The classroom structure and teaching methods were left entirely to the individual teachers in the multiage and homogeneous age groups. Some teachers in each group organized their classrooms in a more open structure than others.

The curriculum for the primary department was the same for both groups; however, teachers had a choice as to the software to be used in reading instruction. The choice in mathematics materials was not nearly so great

as the reading materials. In fact, the mathematics materials were limited to the point that teachers and aides felt a need to design some of their own materials when teaching children who were slow to grasp certain mathematical concepts.

It appears that all classroom functions were performed in a normal and usual manner during the period of time when the practicum was being executed. The classroom functions seemed to move orderly along the normal time line with no unusual events taking place because of the two grouping methods being used.

Post-Testing

The post-testing plan as indicated in the practicum design was to administer a post-test in reading and mathematic Achievement. The self-concept test was to be given in a post-test application to measure whether or not a gain had been achieved in the student's self-concept.

The first week in April of 1976 was established as the time for administering the post-tests. The following tests were administered:

1. Reading Achievement, Form 12A and Mathematics Achievement, Form 12A was given to students in

their first year of school;

2. Reading Achievement, Form 23A and Mathematics Achievement, Form 23A was administerd to students in their second year of school;
3. Reading Achievement, Form 23B and Mathematics Achievement, Form 23B was given to students in their third year of school;
4. I Feel . . . . . Me Feel Self-Concept Appraisal was given all primary students.

The principal developed a raw data form for the recording of pre-test and post-test data (Appendix B). Copies of the raw data forms with total collection of data were furnished to teachers for the purpose of evaluating the progress of their students.

CHAPTER VI

EVALUATION OF THE PRACTICUM

The test data were analyzed through the use of a computer. Parents responded to a questionnaire concerning adequate progress, grouping methods, and communication of the teacher relative to their child's progress. Teachers responded to a questionnaire concerning the side effects on their students of the two methods of grouping.

Evaluations were also made relative to the effectiveness of the practicum by minor components. School attendance was used as one comparative evaluation between groups. Subjective evaluations were made at the conclusion of the practicum by the principal and the teachers.

Evaluation of Pre-Test and Post-Test Data

The six homogeneous age classes which constituted the control group and the seven multiage classes which made up the experimental group were given pre-tests in September of 1975 and post-tests in April of 1976. Reading and mathematics achievement tests along with self-concept tests were administered in the same manner and during the same time frame to both groups. All data

were collected and recorded on specifically designed forms for future computer analysis.

The population sample consisted of 359 primary students enrolled in Beaverbrook Elementary School during the 1975-76 school year. The homogeneous age (control) group consisted of a population of 166 students; whereas, the multiage (experimental) group totaled 193 students.

A. Random Sample: Alphabetical lists of students were compiled for the homogeneous age (control) and multiage (experimental) groups according to the number of years students had been enrolled in school. Twenty students were randomly selected from each category (years in school) for the control and experimental groups (see Table 2). The rationale for this design was to detect, if possible, the age child who would perform better at a given stage of his primary school experience in a homogeneous age or multiage structure, i.e., differences between groups were computed as well as differences between the total population of homogeneous age and multiage groups.

Notations were made on the alphabetical lists by

Table 2

NUMBER OF STUDENTS UTILIZED AS CONTROL AND EXPERIMENTAL GROUPS BY NUMBER OF YEARS IN SCHOOL

No. of Years in School	Homogeneous Sample (Control)	Multiage Sample (Experimental)	Total Sample
1	20	20	40
2	20	20	40
3	20	20	40
Total Sample	60	60	120

those students who had not completed all tests. A die was rolled to establish the starting point for random selection from the lists. If the starting point was more than three names from the top of the list, the selection was made upward as well as downward and every third name was selected for the sample. If a particular list did not yield 20 samples, the die was rolled a second time for a new starting point and every tenth name was selected until the 20 samples were drawn. The sample of 120 students was approximately one-third of the total practicum population.

B. Analysis of the Data for Reading and Mathematics: Students selected in the random sample were listed by number of years in school and by homogeneous age (control) or multiage (experimental) groups (see Appendix C). The sample data were taken from the raw data sheets and analyzed by computer. A "t" test was computed on pre-test and post-test data in order to compare the control and experimental groups.

For the purpose of this practicum, the level of acceptance was set at the .05 level of significance. Analysis of the data indicated that the homogeneous age

(control) group had a mean score of 69.35 with a standard deviation of 31.00; whereas, the multiage (experimental) group had a mean score of 60.70 with a standard deviation of 31.02, with a standard error of 6.93 for both groups. The t-value was determined to be 0.88 with 38 degrees of freedom. This proved not to be significant at the accepted level of significance.

The Metropolitan Readiness Test, given all first year students, indicated a composite percentile score relative to reading and mathematics readiness; however, all other test scores were received from separate reading and mathematics tests. Therefore, the post-test reading and mathematics achievement scores (percentiles) were averaged and compared with the pre-test results.

The homogeneous age (control) group had a mean score of -9.44; whereas, the multiage (experimental) group had a mean score of -3.37; the standard deviation was 18.38 and 10.99; the standard error was 2.37 and 1.42, respectively. The t-value was -2.20 which was significant at the 0.03 level in favor of the multiage (experimental) group (see Table 3).

The 80 students in their second and third years of

Table 3

PRE-TEST AND POST-TEST DATA IN READING AND MATHEMATICS FOR STUDENTS IN THEIR FIRST YEAR OF SCHOOL

	No. of Cases	Mean	Standard Deviation	Standard Error	t Value	Degrees of Freedom	Level of Significance
Homogeneous Age (Control) Group Pre-Test	20	69.35	31.00	6.93	.88	38	0.38
Multiage (Experimental) Group Pre-Test	20	60.70	31.02	6.93			
Homogeneous Age (Control) Group Post-Test	20	-9.44*	18.38	2.37	-2.20*	118	0.03
Multiage (Experimental) Group Post-Test	20	-3.37*	10.99	1.42			

*Minus mean scores reflect different norms on unlike standardized tests. Post-test data indicate percentile gain.

school were given separate reading and mathematics achievement tests as pre-tests and post-tests. The reading and mathematics data were analyzed separately instead of together as was the case with students in their first year of school.

The pre-test reading achievement data for the homogeneous age (control) group indicate the 40 students used as a sample had a mean score (percentile) of 47.68; whereas, the multiage (experimental) group had a mean score of 37.72 with standard deviations of 25.08 and 26.74, respectively. The standard error was computed as 3.97 for the control group and 4.23 for the experimental group. The t-value was found to be 1.72, with the level of significance of .09. This proved to be greater than the acceptable level of significance (.05).

The post-test reading achievement data for the homogeneous (control) group indicate that 40 cases had a mean score of 50.30; whereas, the multiage (experimental) group had a mean score of 42.69. The standard deviation was 25.66 and 30.36, respectively, and the standard error was 3.31 and 3.92, respectively. The t-value was computed as 1.48 with the level of significance of .14 which was not significant at the .05 level.

The data also show the reading achievement gain between the homogeneous (control) group and the multiage (experimental) group not to be significant. The data indicate a t-value of 1.34 and the level of significance was .18 which was not acceptable (see Table 4).

The pre-test mathematics achievement data for the homogeneous age (control) group indicate that 40 students had a mean score (percentile) of 43.83; whereas, the multiage (experimental) group had a mean score (percentile) of 39.30. The standard deviation was 26.51 for the control group and 26.53 for the experimental group. The standard error was 4.19 for both groups. The t-value was .76, and the level of significance was .45 which was not significant at the .05 level.

The post-test mathematics achievement data for the homogeneous age (control) group indicate that 40 cases had a mean score (percentile) of 46.63; whereas, the multiage (experimental) group had a mean score (percentile) of 39.14. The standard deviation was 30.73 and 28.52, respectively. The standard error was 3.97 for the control group and 3.68 for the experimental group. The t-value was computed as 1.38 with the level of significance 0.17, which was not acceptable.

Table 4

PRE-TEST AND POST-TEST DATA IN READING ACHIEVEMENT FOR STUDENTS IN THEIR SECOND AND THIRD YEARS IN SCHOOL

	No. of Cases	Mean	Standard Deviation	Standard Error	t Value	Degrees of Freedom	Level of Significance	Percentile Gain Between Groups		
								t Value	Degrees of Freedom	Level of Significance
Homogeneous Age (Control) Group Pre-Test	40	47.68	25.08	3.97	1.72	78	0.09	1.34	118	0.18
Multiage (Experimental) Group Pre-Test	40	37.72	26.74	4.23						
Homogeneous Age (Control) Group Post-Test	40	50.30	25.66	3.31	1.48	118	0.14			
Multiage (Experimental) Group Post-Test	40	42.69	30.36	3.92						

The data also show the mathematics achievement gain between the homogeneous age (control) group and the multiage (experimental) group to be significant. The data indicate a t-value of 2.44 with a level of significance of 0.02 (see Table 5).

It is of more than passing interest to note the comparison pre-test scores are consistently in favor of the homogeneous age (control) group to a small degree. That factor seems to indicate the homogeneous age (control) group and the multiage (experimental) group were not totally balanced with students of like achievement in reading and mathematics (see Table 6). The intelligence quotient of the two groups was comparable in that the sample data indicate both groups had an equal I.Q. of 97.

In summary, it appears that the data relative to reading and mathematics achievement indicate a positive effect toward multiage (experimental) grouping for first year students. The data show that reading achievement for second and third year students was not significantly different; however, the mathematics achievement data show a significant difference in favor of the homogeneous age (control) group.

Table 5

PRE-TEST AND POST-TEST DATA IN MATHEMATICS ACHIEVEMENT FOR STUDENTS IN THEIR SECOND AND THIRD YEARS OF SCHOOL

	No. of Cases	Mean	Standard Deviation	Standard Error	t Value	Degrees of Freedom	Level of Significance	Percentile Gain Between Groups		
								t Value	Degrees of Freedom	Level of Significance
Homogeneous Age (Control) Group Pre-Test	40	43.83	26.51	4.19	.76	78	0.45	2.44	118	0.02*
Multiage (Experimental) Group Pre-Test	40	39.30	26.53	4.19						
Homogeneous Age (Control) Group Post-Test	40	46.63	30.73	3.97	1.38	118	0.17			
Multiage (Experimental) Group Post-Test	40	39.14	28.52	3.68						

*Significant at the .05 level

Table 6

A COMPARISON OF PRE-TEST MEAN SCORES IN READINESS, READING, AND MATHEMATICS BETWEEN THE HOMOGENEOUS AGE (CONTROL) GROUP AND THE MULTIAGE (EXPERIMENTAL) GROUP

	Cases	Subject Area	Mean Score
Homogeneous Age (Control) Group	20	Readiness	69.35
Multiage (Experimental) Group	20		60.70
Homogeneous Age (Control) Group	40	Reading	47.68
Multiage (Experimental) Group	40		37.72
Homogeneous Age (Control) Group	40	Mathematics	43.83
Multiage (Experimental) Group	40		39.30

C. Analysis of the Data for Self-Concept: The self-concept test was administered by a pre-test and post-test design to all students in the primary department for the purpose of identifying the self-concept among students in the homogeneous age (control) group and the multiage (experimental) group and to observe if any changes took place between groups. The I Feel . . . Me Feel Self-Concept Appraisal was the instrument used and the pre-test and post-test were given in September, 1975, and April, 1976, respectively.

The pre-test self-concept data for the homogeneous age (control) group indicate that 60 cases had a mean score of 4.05; whereas, the multiage (experimental) group had a mean score of 4.11. The standard deviation was 0.56 (control) and 0.48 (experimental) with the standard error of 0.07 and 0.06, respectively. The t-value was -0.68 which was not significant at the accepted level.

The post-test self-concept data for the homogeneous age (control) group show that 60 cases had a mean score of 3.93; whereas, the multiage (experimental) group had a mean score of 4.15. The standard deviation was 0.55

(control) and 0.45 (experimental), and the standard error was 0.07 (control) and 0.06 (experimental). The t-value was -2.30 which was significant at the .02 level (see Table 7).

It is considered important to note that self-concept mean scores for the homogeneous age (control) group went down while the mean scores for the multiage (experimental) group went up. The gain between groups was computed and a t-value of -1.54 obtained which was not acceptable at the .05 level of significance.

Analysis of the Data from Parents

A questionnaire was sent (April 7, 1976) to parents of children who were selected in the random sample (see Appendix D). The questionnaire was sent to the parents by the students and it was returned by the same method. The purpose of the questionnaire was to gather feedback from the parents relative to the three questions below:

1. Do you believe that your child has made adequate progress this school term?
2. Do you believe the grouping method used for your child (multiage or homogeneous) is better than the other method being used?

Table 7

PRE-TEST AND POST-TEST RESULTS OF THE SELF-CONCEPT APPRAISAL

	No. of Cases	Mean	Standard Deviation	Standard Error	t Value	Degrees of Freedom	Level of Significance	Gain Between Groups		
								t Value	Degrees of Freedom	Level of Significance
Homogeneous Age (Control) Group Pre-Test	60	4.05	0.56	0.07	-0.68	118	0.45	-1.54	118	0.127
Multiage (Experimental) Group Pre-Test	60	4.11	0.48	0.06						
Homogeneous Age (Control) Group Post-Test	60	3.93	0.55	0.07	-2.30	118	0.02			
Multiage (Experimental) Group Post-Test	60	4.15	0.45	0.06						

3. Do you believe the teacher has communicated accurately with you concerning your child's progress?

A yes or no response was given by the parents to the three questions and most of them indicated satisfaction with their child's group assignment whether he was in the homogeneous age or the multiage group. They were also given an opportunity to make suggestions or comments on the questionnaire concerning the two methods of grouping (see Table 8).

The homogeneous age group and the multiage group had 60 questionnaires each, which made a total of 120 questionnaires sent to parents. Seventy-seven questionnaires were returned and coded so they could be tabulated according to the child's assignment to a homogeneous age or multiage group. Parents of children in the homogeneous age group returned 41 questionnaires; whereas, in the multiage group 36 of the forms were returned.

In summary, it appears that parents who have children in both groups were highly pleased with their child's progress in school during the 1975-76 term. They also believed that the grouping method used for their child

Table 8

A SUMMARY OF PARENT QUESTIONNAIRE RESPONSES

	Questionnaires		Question 1		Question 2		Question 3		No. of Suggestions/ Comments
	Distributed	Returned	Yes	No	Yes	No	Yes	No	
Homogeneous Age (Control) Group	60	41	38	3	29	4	40	1	7*
Multiage (Experimental) Group	60	36	32	4	25	6	35	1	9**

* 5 comments for homogeneous grouping
** 6 comments for multiage grouping

was the best and all except two parents believed the teacher had communicated accurately with them concerning their child's progress.

Analysis of the Data from Teachers

A questionnaire was given (April 7, 1976) to the 13 primary teachers to gather data concerning side effects relative to the two methods of student grouping (see Appendix E). The questionnaire was also designed to give the principal an indication of how well each group of teachers (homogeneous age and multiage) perceived the progress of their class, and to what degree teachers were satisfied with their group of students.

The data (see Table 9) received from teachers indicate the following:

Question 1. To what degree did your students improve their self-concept?

Teachers from the homogeneous age (control) group and multiage (experimental) group responded identically.

Question 2. To what degree did your students exhibit patience and tolerance toward classmates?

Teachers from the multiage (experimental) group

Table 9

A SUMMARY OF TEACHER QUESTIONNAIRE RESPONSES

Questions	Cases	Responses Homogeneous Age (Control)						Cases	Responses Multiage (Experimental)					
		(No. of Responses Above the Continium)							(No. of Responses Above the Continium)					
1. To what degree did your students improve their self-concept?	6	0	1	2	(2) 3	(4) 4	5	7	0	1	2	(2) 3	(4) 4	5
2. To what degree did your students exhibit patience and tolerance toward classmates?	6	0	1	2	(1) 3	(5) 4	5	7	0	1	2	(1) 3	(3) 4	(3) 5
3. To what degree did your students exhibit concern and friendship toward classmates?	6	0	1	2	3	(6) 4	5	7	0	1	2	3	(4) 4	(3) 5
4. To what degree did your students understand younger and older classmates?	6	0	1	2	(1) 3	(5) 4	5	7	0	1	2	3	(4) 4	(3) 5
5. To what degree were you satisfied with the overall class performance during the year?	6	0	1	2	(2) 3	(3) 4	(1) 5	7	0	(1) 1	2	(2) 3	(3) 4	(1) 5
6. To what degree were you satisfied with the type of grouping whether it was a multiage or homogeneous age group?	6	0	1	2	3	(1) 4	(5) 5	7	0	1	(1) 2	(2) 3	(2) 4	(2) 5
TOTALS					(6)	(24)	(6)			(1)	(1)	(7)	(20)	(12)

believed to a greater degree that their students exhibited more patience and tolerance toward classmates than teachers from the homogeneous age (control) group.

Question 3. To what degree did your students exhibit concern and friendship toward classmates?

The multiage (experimental) group teachers believed to a greater degree that their students exhibited concern and friendship toward classmates than did the teachers of the homogeneous age (control) group.

Question 4. To what degree did your students understand younger and older classmates?

Teachers from the multiage (experimental) group believed to a greater degree that their students had a better understanding of younger and older classmates than the teachers from the homogeneous age (control) group.

Question 5. To what degree were you satisfied with the overall class performance during the year?

Teachers from both groups responded almost identically.

Question 6. To what degree were you satisfied with the type of grouping whether it was a multiage or homogeneous age group?

Teachers from the homogeneous age(control) group

indicated a much higher degree of satisfaction with the type of group they taught. This is interpreted to mean that those teachers were happier with the quality of their group and the progress of their group, more so than the teachers with multiage (experimental) groups.

Analysis of Attendance Data

The attendance records of the 120 students in the sample were studied to determine which group, the homogeneous age (control) group or the multiage (experimental) group, had the best attendance record. The data indicate both groups had a 95 per cent attendance record and there were no significant differences in attendance between groups.

Analysis of Overage Data

A survey was made of the 60 students in the homogeneous age (control) sample and the 60 students in the multiage (experimental) sample to identify students who were one year or more older than their peers within the sample. It was found that the homogeneous age sample had 10 older students; whereas, the multiage sample had 12 older students. It was not believed that the age da reported made any appreciable difference in the study

of the two groups.

Evaluation Summary

The data collected concerning intelligence, socio-economic status, race, sex and age were studied after such data were analyzed by the computer and it was found that these factors did not show a significant correlation to achievement. The author of this report believed such factors would indicate which types of students would adapt to multiage or homogeneous age groupings to the best advantage for learning. However, the design of the practicum obviously was not comprehensive enough to measure such factors adequately.

It was found that intelligence scores were closely correlated with socio-economic status. The other data collected were not as easily identifiable by visual scrutiny.

It appears that the variety of methods used in evaluating the practicum has produced positive and negative data relative to both methods of grouping students for classroom instruction. It is this author's opinion, however, that the overall data supports the multiage grouping concept.

CHAPTER VII

INSTITUTIONALIZATION, 1976-77 SCHOOL TERM

The multiage grouping method was institutionalized in 7 of 13 classrooms during the 1975-76 school term; therefore, 54 per cent of the primary students were in multiage classes; whereas, 46 per cent were in classes which were grouped by the homogeneous age method. It was the desire of the principal to move the entire primary department into multiage grouping at the beginning of the 1976-77 school term; however, due to the fact that some parents are not yet in full agreement with the multiage concept and several of the teachers are not sure of their capabilities at this time to deal with multiage grouping, both types of grouping will be in effect again during the 1976-77 school term.

The principal and staff have discussed the attitudes of staff members toward multiage grouping as well as parent and system administrators' attitudes in that respect. The staff continues to study and learn from the experiment and will continue to do so long after the practicum report has been submitted. It must be stated here that the principal and staff of Beaverbrook School are committed

to develop a more appropriate organizational structure in order to produce a more meaningful educational experience for students, instead of merely completing the practicum. After much consideration by the staff as to the best approach to take toward grouping primary students for next term, it has been decided in the interest of the innovation to offer parents and their children a choice as to the type of group their children will be assigned to, if possible.

Another major reason for the decision to work another year using both grouping methods was that the principal was very much aware of the possibility of a parent "backlash" through the school board and/or the system superintendent which could totally eliminate the innovation which he had introduced. He has learned from past experiences concerning changes in the local schools that persistence and patience must be held in perspective to the situation and must be applied at the appropriate time to produce the desired change.

Parents and system-wide administrators were informed at the beginning of the term of the plans to apply certain tests to help evaluate the practicum. The

principal is aware of the fact that some parents and system-wide administrators will be looking for great achievement gains and wonderful reports from the multiage (experimental) grouping. Since the data did not indicate that multiage grouping produces better achievement, it is thought best at this time not to push for total institutionalization of the multiage method of grouping. It is the belief of the principal that more than one-half of the parents will either choose a multiage structure or they will allow the teachers to place the child wherever they deem appropriate.

The multiage grouping method was institutionalized in the primary department of Beaverbrook School in a majority of the classes at the beginning of the 1975-76 school term. It is anticipated that more classes will use the multiage grouping method during the 1976-77 school term and the following steps will be taken in order to institutionalize the method to a greater degree.

1. The principal will continue to work with doubting teachers in an effort to give them assurance and confidence in the multiage method of grouping.
2. The principal will issue an invitation to parents to attend an information seminar to be held on

May 17, 1976, at 7:30 p.m. in the School Media Center to discuss student grouping methods to be used during the 1976-77 school term.

a. A written invitation will be issued in the P.T.A. publication, "The Beaver Chatter," on May 10, 1976.

b. An oral invitation will be given to parents at the May 11, 1976, meeting of the P.T.A.

c. A written invitation will be sent by primary students to parents on May 14, 1976.

3. The principal will lead the seminar according to the agendum outline below. He will express:

a. Appreciation to parents for attending the meeting and for their interest and support given to the school during the past school term.

b. The purpose of this seminar and to give a report on the grouping procedures which have been in use during the past year.

c. The concern of the staff as they move further into multiage grouping and the needed support of parents. Also, the need for parents to learn new and better ways to deal with their children.

d. The need for their response to the questionnaire (Appendix F) as to their preference to the type of classroom group for their child.

4. The principal will send the questionnaire to parents on May 18, 1976, which will give parents three choices relative to choosing a grouping method for their child. The parents may choose for their child to be placed in:
   a. A multiage class;
   b. A homogeneous age class;
   c. Either of the above according to his achievement, ability, social and emotional factors, as determined by the school staff.

When the above design is completed, the principal and teachers will determine the number of multiage and homogeneous age classes to be structured for the 1976-77 school term.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The purpose of the practicum was to compare the effects of multiage and homogeneous age methods of grouping students in the primary department of Beaverbrook Elementary School. The practicum, through its purpose and objectives, attempted to compare the stated methods of grouping students in order to aid the staff in developing a better nongraded and more individualized educational program for students.

A review of selected literature was made relative to nongradedness, individualized instruction, and methods of grouping before and during the time when the practicum was being designed and executed. When the design was clearly established, the practicum execution began with teacher preparation and grouping students into homogeneous age and multiage groups. Classroom instruction using the two methods began with the opening of the 1975-76 school term and parents were informed about the practicum at that time.

The school term (1975-76) began with anticipation and

the pre-testing phase of the practicum was administered in September. Normal and regular types of classroom activities took place during the school term. As near as possible, identical treatment was given to all classes which included six homogeneous age classes and seven multiage classes. The post-testing phase of the practicum was completed in April, 1976. Parents and teachers also evaluated phases of the practicum and the data received from parents, teachers, and standardized tests were analyzed.

The data indicate the execution of the practicum embarked the principal and teachers of Beaverbrook School upon a positive and worthwhile change in the organizational structure of the school. More than one-half of the primary students were enrolled in multiage classes during the 1975-76 school term, and it is expected that three-fourths of the students will be enrolled in such classes during the 1976-77 term; therefore, it is anticipated all classes will be structured by some type of multiage grouping method during the 1977-78 school term. It is the author's belief that if the major change proposed in this report can be totally implemented in

three years, indeed, a significant innovation will have been made in the school.

After careful analysis of the data, it appears the Beaverbrook principal and teachers have the opportunity and obligation to continue their study into ways to bring about a more comprehensive and meaningful educational program for their students. This author interprets the data to indicate a positive mandate to move toward full implementation of a total multiage grouping structure for the primary department. Institutionalization will need to be made with caution but in a persistent manner.

The objectives (not verbatim) of the practicum were:

1. To study the selected literature;
2. To structure homogeneous age and multiage classes;
3. To inform parents of the changes and seek their support;
4. To pre-test and post-test students from both groups and to analyze a sample of the data as part of the evaluation process;
5. To draw conclusions and determine appropriate plans for the future;
6. To develop plans for full institutionalization

as determined by the practicum. In 1976 - 77 a 75 percent implementation will be sought at Beaverbrook School.

It appears exceedingly clear to this author that the purpose and objectives of the practicum have been met. The individuals participating in the practicum used the aforementioned objectives for guidance and direction.

The author of this report recognizes the fact that no single organizational structure is a panacea and no single structure could be implemented without flaw; however, he has had experience with five distinct methods of organizational structure for primary students (homogeneous grouping by ability, team teaching, semi-departmental grouping, homogeneous grouping by age and multiage grouping) and presently he supports the multiage method of grouping under the prevailing circumstances at Beaverbrook School.

It should not be overlooked that the multiage and homogeneous age grouping methods have been in force during the 1975 - 76 school term and both methods of grouping will continue during the 1976 - 77 term. At the present

time the staff is involved in establishing classroom instructional groups for the 1976 - 77 term and it appears that approximately 75 percent of the primary students will be structured within multiage groups. There is a possibility that both groups will remain in force or that a third grouping method could develop. The staff has not gone about its task blindly and will continue to evaluate its efforts made toward improving student grouping.

The underlying factor governing organizational structure at Beaverbrook School is that of trying to develop a more effective nongraded program through the use of multiage grouping as mentioned on page 33 of this report. In the opinion of this author, of the five grouping methods tried at Beaverbrook, the multiage method of grouping was the best method tried in light of successfully deleting grade labeling of students, and it has provided a means of meeting the wide range of needs of students more adequately.

Significant gains among first year students in multiage classes were noted in post-test scores, and these students were the only ones who have been exposed exclusively to the multiage classroom environment.

The self-concept of all students in multiage classes improved while the self-concept of students in the homogeneous age classes declined. The subjective evaluation of the teachers indicated that a greater emotional stability was present among the majority of the students in the multiage classes as compared with those in the homogeneous age classes.

The jury is still out on conclusive evidence supporting the multiage grouping method. This author agrees with John Goodland who maintains that school innovations require from three to five years of institutionalization in order to evaluate their effectiveness.

One should remain cognizant of the fact that community approval is a major factor in any school innovation, and that parents are accustomed to a oneness or likeness for all students. Parents tend to understand the school structure which remains the same as it was when they were students, but when changes take place or two methods of grouping are used, the principal must be able to offer rationale for such actions. The principal has been successful in communicating these changes to the school community.

It is not advocated in this report that the multiage method of grouping should be implemented in all schools within the Griffin-Spalding County System, or that it will be the only method of grouping to be used at Beaverbrook School in the future.

The report of this practicum has been made available to the practicum observers, the superintendent of schools, the board of education and to fellow principals within the local school system. Three principals have expressed an interest in observing the multiage grouping method in action during the 1976 - 77 school term. The principal of Beaverbrook School has been asked to discuss this practicum at a pre-school administrators meeting in August, 1976.

Appendix A

PRIMARY STUDENT GROUPING INFORMATION

Name _____ Birthdate _____

Race _____ Reading Level (Material) _____

Sex _____ Math Level (Material) _____

Leadership Ability _____ Emotional and/or Physical Disorders _____

( ) Check here for additional information on back

Appendix B

RAW DATA SHEET

Room No._____

Multiage Class
(Years in school____)

Homogeneous Class
(Years in school____)

Student								Reading Ach. Test		Math Ach. Test		Self Concept	
Name	No.	Age	Sex	Race	IQ	Socio-Econom. Index	Metro. Readi. Test	Pre	Post	Pre	Post	Pre	Post

Appendix D

M E M O R A N D U M

TO: Parents of Primary Age Students

FROM: Charles Mobley, Principal
Primary Teachers

SUBJECT: Evaluation of Multiage and Homogeneous Age Grouping Methods

DATE: April 7, 1976

You and your child have been selected at random to participate in the evaluation of our study concerning student grouping methods. The teachers and I are pleased with the information and knowledge we have gathered concerning the two methods of grouping. We would appreciate your response to the attached questionnaire. Please have your child return it to his teacher tomorrow morning.

Your cooperation during the school term is sincerely appreciated and you have been a vital part of our successful program.

PARENT EVALUATION

Multiage and Homogeneous Age
Grouping Methods
Primary Department
Beaverbrook School

Please give your honest opinion to the items listed below:

	Yes	No
1. Do you believe that your child has made adequate progress this school term?	____	____
2. Do you believe the grouping method used for your child (multiage or homogeneous) is better than the other method being used?	____	____
3. Do you believe the teacher has communicated accurately with you concerning your child's progress?	____	____

Suggestions or comments concerning grouping methods used this school term: (It is not necessary to sign your name)

Appendix E

PRIMARY DEPARTMENT EVALUATION

BEAVERBROOK ELEMENTARY SCHOOL

1975 - 76 TERM

Indicate (x) your class grouping: Multiage_____

Homogeneous Age_____

Teacher, in your opinion, rate students as a group in your class on the scale of 0 to 5 (0 - no improvement, and 5 - most improvement) as to their accomplishments in the following areas.

(Circle the appropriate no.)

1. To what degree did your students improve their self-concept? 0 1 2 3 4 5

2. To what degree did your students exhibit patience and tolerance toward classmates? 0 1 2 3 4 5

3. To what degree did your students exhibit concern and friendship toward classmates? 0 1 2 3 4 5

4. To what degree did your students understand younger and older classmates? 0 1 2 3 4 5

5. To what degree were you satisfied with the overall class performance during the year? 0 1 2 3 4 5

6. To what degree were you satisfied with the type of grouping whether it was a multiage or homogeneous age group? 0 1 2 3 4 5

Appendix F

BEAVERBROOK ELEMENTARY SCHOOL

Primary Department

M E M O R A N D U M

TO: Parents of Primary Children

FROM: Charles Mobley, Principal

SUBJECT: Student Grouping Methods (1976-77)

DATE: May 18, 1976

Most of you have been aware of the two methods by which primary students have been grouped for classroom instruction during this school term; many of you have been involved in various ways in the primary program. As was reported to you, most we have learned about practical innovation. It is our desire to further implement the multiage grouping method during the 1976-77 term, and we seek your continued support as we try to structure a better school for our children.

Please indicate the degree to which you will cooperate with us in planning for the next school term by completing the form below and returning it to your child's teacher tomorrow.

----------cut and return----------

Check one ( ):

1. _____ As a parent I desire to leave the decision on the method of grouping to the professional educators and trust their judgement in placing my child in the most appropriate group.

2. _____ As a parent I desire to have my child placed in a multiage group for classroom instruction.

3. _____ As a parent I desire to have my child placed in a homogeneous age group for classroom instruction.

Child's Name _____ Room No. _____ Signature of Parent _____

BIBLIOGRAPHY

Apple, M. W., "Commonsense Categories and Curriculum Thought," Association for Supervision and Curriculum Development Yearbook, 1975, pp. 116-148.

Barth, Roland S., Open Education and the American School, New York: Agathon Press, Inc., 1972.

Brown, B. Frank, The Appropriate Placement School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1965.

Brown, Education by Appointment, West Nyack, N. Y.: Parker Publishing Co., Inc., 1968.

Chace, E. Stanley, "An Analysis of Some Effects of Multi-Grade Grouping in an Elementary School," Doctoral Dissertation, University of Tennessee, August, 1961, Dissertation Abstracts, 22:3544.

[illegible] Groups: Black American and Korean American," The Elementary School Journal, 76, No. 1, October, 1975.

Day, Barbara, and Gilbert H. Hunt, "Multiage Classrooms: An Analysis of Verbal Communication," The Elementary School Journal, 75, No. 7, April, 1975.

Drummond, Harold, "Grouping: A Preliminary Statement," School Life, 45, June, 1963.

Dufay, Frank R., Ungrading the Elementary School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1966.

Dunn, Rita, and Kenneth Dunn, "Learning Style As a Criterion for Placement in Alternative Programs," Phi Delta Kappan, 56, December, 1974.

Esposito, Dominick, "Homogeneous and Heterogeneous Ability Grouping: Principal Findings and Implications for Evaluating and Designing More Effective Educational Environments," Review of Educational Research, 43, No. 2, Spring, 1973.

Foerster, Leona M., "Labels Don't Make It," Instructor, 84, February, 1975.

Glogau, Lillian, and Murray Fessel, The Nongraded Primary School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1967.

Goodlad, John I., "An Emphasis on Change," The Education Digest, 40, No. 8, April, 1975.

Goodlad, "The Child and His School in Transition," The Education Digest, 38, No. 8, April, 1973.

Goodlad, and Robert H. Anderson, The Nongraded Elementary School, revised ed., New York: Harcourt, Brace and World, Inc., 1963.

Grenis, Michael, "II. Individualization, Grouping, Competition, and Excellence," Phi Delta Kappan, 57, No. 3, November, 1975.

Jarvis, Oscar T., and Lutian R. Wootten, The Transitional Elementary School and Its Curriculum, Dubuque, Iowa: Wm. C. Brown Co. Publishers, 1966.

[illegible], Herbert R., The Open Classroom, New York: Vintage Books, 1970.

Leonetti, Robert, and Douglas G. Muller, "The Spanish-surnamed Child: Self-Concept and School," The Elementary School Journal, 76, No. 4, January, 1976.

Lewis, James, Jr., A Contemporary Approach to Nongraded Education, West Nyack, N. Y.: Parker Publishing Co., Inc., 1969.

Martin, Lyn S., and Barbara N. Pavan, "Current Research on Open Space, Nongrading, Vertical Grouping, and Team Teaching," Phi Delta Kappan, 57, No. 5, January, 1976.

Neill, Shirley, "Self-Starting School," American Education, 11, October, 1975.

Papay, J. P., and others, "Effects of Trait and State Anxiety on the Performance of Elementary School Children in Traditional and Individualized Multiage Classrooms," Journal of Educational Psychology, 67, December, 1975.

Pavan, Barbara Nelson, "Good News: Research on the Nongraded Elementary School," The Elementary School Journal, 73, No. 6, March, 1973.

Project on the Instructional Program of the Public Schools, Planning and Organizing for Teaching, Washington: National Education Association, 1963.

Providing for Individual Differences in the Elementary School, ed. by Norma E. Cutts and Nicholas Moseley, Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1960.

Rehwoldt, Walter, and Warren W. Hamilton, "An Analysis of Some of the Effects of Interage and Intergrade Grouping in an Elementary School," Doctoral Dissertation, University of Southern California, January, 1957, Dissertation Abstracts.

Ridgeway, Lorna, and Irene Lawton, Family Grouping in the Primary School, New York: Ballantine Books, 1973.

Roberts, Frederick [illegible] Macmillan Co., 1971.

Schrankler, William J., "Family Groupings and the Affective Domain," The Elementary School Journal, 76, No. 7, April, 1976.

Shaw, Jane S., "Cross-Age Tutoring: How to Make It Work," The Education Digest, 38, No. 7, March, 1973.

Smith, Lee L., A Practical Approach to the Nongraded Elementary School, West Nyack, N. Y.: Parker Publishing Co., Inc., 1968.

Smith, Teaching in a Nongraded Classroom, West Nyack, N. Y.: Parker Publishing Co., Inc., 1970.

Smith, Lois, "Continuous Progress Plan," Childhood Education, 37, March, 1961.

To Nurture Humaneness, Commitment for the 70's, Washington: Association for Supervision and Curriculum Development, 1970.

Vogel, Francis X., and Norman D. Bowers, Pupil Attitudes, Achievement and Behavior in a Multi-Age Nongraded School: Final Report, Evanston, Ill.: Northwestern University, 1968.

Williams, Mary Heard, "Does Grouping Affect Motivation?", The Elementary School Journal, 73, No. 3, December, 1972.

Wolfson, Bernice J., "Multi-Grade Classes," Elementary English, 38, December, 1961.